

**ABSTRACT**

5 A system, method, and computer program product for allocating resources to  
a communication channel between a transmitter and a receiver are disclosed. The  
receiver implements a procedure that instructs the transmitter to utilize the  
maximum available bandwidth, consistent with maintaining satisfactory  
communication channel performance. When the performance of the communication  
channel degrades, the receiver measures the strength of a communication signal  
received from the transmitter. If the communication signal strength satisfies a  
10 threshold, then the bandwidth dedicated to the communication channel may be  
decreased, and at least one of the number of bits per symbol and coding rate may be  
increased. By contrast, if the communication signal strength fails to satisfy a  
threshold, then the transmitter may increase the transmission power and/or reduce  
the user rate of the communication link.

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